

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-140-24
Relating to Exemptions under Section 27156
of the Vehicle Code

SPEARCO PERFORMANCE PRODUCTS, INC.
AIR-TO-AIR INTERCOOLER UPGRADE SYSTEM
PART NOS. 07-0102C, 2-173 AND 2-174

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-5;

IT IS ORDERED AND RESOLVED: That the installation of the air-to-air intercooler upgrade system part numbers 07-0102C, 2-173 and 2-174 manufactured by Spearco Performance Products, Inc. has been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for 1989 Ford Probe 2.2 Liter Turbo and 1988-89 Mazda MX-6 2.2 liter.

This exemption shall not apply to any device, apparatus, or mechanism advertised, offered for sale or sold with, or installed on, a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

This Executive Order is valid provided that installation instructions for this device will not recommend tuning the vehicle to specifications different from those submitted by the device manufacturer.

Changes made to the design or operating conditions of the device, as exempted by the Air Resources Board, that adversely affect the performance of a vehicle's pollution control system shall invalidate this Executive Order.

Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of a kit shall not be construed as an exemption to sell, offer for sale, or advertise any component of a kit as an individual device.

This Executive Order does not constitute any opinion as to the effect that the use of this device may have on any warranty either expressed or implied by the vehicle manufacturer.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF SPEARCO PERFORMANCE PRODUCTS, INC. AIR-TO-AIR INTERCOOLER UPGRADE SYSTEM.

No claim of any kind, such as "Approved by Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

Section 43644 of the Health and Safety Code provides as follows:

"43644. (a) No person shall install, sell, offer for sale, or advertise, or, except in an application to the state board for certification of a device, represent, any device as a motor vehicle pollution control device for use on any used motor vehicle unless that device has been certified by the state board. No person shall sell, offer for sale, advertise, or represent any motor vehicle pollution control device as a certified device which, in fact, is not a certified device. Any violation of this subdivision is a misdemeanor."

Any apparent violation of the conditions of this Executive Order will be submitted to the Attorney General of California for such action as he deems advisable.

Executed at El Monte, California, this 2nd day of December, 1988.



K. D. Drachand, Chief
Mobile Source Division

State of California
AIR RESOURCES BOARD

EVALUATION OF SPEARCO PERFORMANCE PRODUCTS, INC.'S. AIR-TO-AIR INTERCOOLER
UPGRADE SYSTEM PART NUMBERS 07-0102C, 2-173, AND 2-174 FOR EXEMPTION FROM
THE PROHIBITIONS IN VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH
SECTION 2222, TITLE 13, OF THE CALIFORNIA ADMINISTRATIVE CODE

December 1988

EVALUATION OF SPEARCO PERFORMANCE PRODUCTS, INC.'S. AIR-TO-AIR INTERCOOLER
UPGRADE SYSTEM PART NUMBERS 07-0102C, 2-173, AND 2-174 FOR EXEMPTION FROM
THE PROHIBITIONS IN VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH
SECTION 2222, TITLE 13, OF THE CALIFORNIA ADMINISTRATIVE CODE

by
Mobile Source Division

State of California
AIR RESOURCES BOARD
9528 Telstar Avenue
El Monte, CA 91731

(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

SUMMARY

Spearco Performance Products, Inc. (Spearco) has requested an exemption on their air-to-air Intercooler Upgrade System part numbers 07-0102C, 2-173 and 2-174 which are applicable to 1989 Ford Probe Turbo 2.2 Liter and 1988-89 Mazda MX-6 2.2 Liter.

Spearco was previously granted Executive Order D-140-23 on March 26, 1988 for their air-to-air Intercooler Kit No. 07-0102 for 1988 Ford Merkur. Based on engineering evaluation, the staff concludes that the Spearco Intercooler Upgrade System will not adversely affect exhaust emissions from the applicable vehicles.

The staff recommends that Spearco be granted the exemption and that Executive Order D-140-24 be issued.

CONTENTS

	<u>Page Number</u>
<u>SUMMARY</u>	i
<u>CONTENTS</u>	ii
I. <u>INTRODUCTION</u>	1
II. <u>CONCLUSION</u>	1
III. <u>RECOMMENDATIONS</u>	1
IV. <u>INTERCOOLER UPGRADE SYSTEM DESCRIPTION</u> <u>AND OPERATION</u>	1
V. <u>DISCUSSION</u>	2

EVALUATION OF SPEARCO PERFORMANCE PRODUCTS, INC.'S. AIR-TO-AIR INTERCOOLER
UPGRADE SYSTEM PART NUMBERS 07-0102C, 2-173, AND 2-174 FOR EXEMPTION FROM
THE PROHIBITIONS IN VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH
SECTION 2222, TITLE 13, OF THE CALIFORNIA ADMINISTRATIVE CODE

I. INTRODUCTION

Spearco Performance Products, Inc. (Spearco) , of 7541 Woodman Place, Van Nuys, California 91405, has applied for exemption on their Intercooler Upgrade System for 1989 Ford Probe Turbo 2.2 Liter and 1988-89 Mazda MX-6 2.2 Liter. The Spearco Intercooler replaces factory (OEM) intercooler and offers improvement in charge cooling at higher speeds and slightly less charge air pressure.

II. CONCLUSION

E.O. D-140-23 was previously granted to Spearco on the basis that the Rapido Group air-to-air intercooler kit did not have an adverse effect on the exhaust emissions when the kit is installed on the 1985-87 2.3 liter Ford Merkur vehicles with OEM turbocharger. The previous intercooler and the new Intercooler Upgrade System are similar in design and function. Based on engineering evaluation of the device, the staff concludes that the Spearco Intercooler Upgrade System part numbers 07-0102C, 2-173 and 2-174 will not adversely affect exhaust emissions from the applicable vehicles.

III. RECOMMENDATIONS

The staff recommends that Spearco be granted an exemption as requested and the Executive Order D-140-24 be issued.

IV. INTERCOOLER UPGRADE SYSTEM DESCRIPTION AND OPERATION

The purpose of the intercooler is to reduce the temperature of the intake air/fuel charge going into the turbocharged engine. This reduction in the intake charge temperature allows a higher charge density (more amount

of air per minute flowing through the engine) which means more fuel into the engine at a given intake manifold vacuum/pressure.

The major components of the Spearco air-to-air Intercooler Upgrade System are a heat exchanger and inter-connecting mandrel bent tubes. They are packaged with installation hardware and Instructions and sold as a kit. The kit is designed using different design concepts, including tubing lengths, diameter and bends, to suit the requirements of the individual vehicle.

The air-to-air heat exchanger is located in such a way that the heated charge air flow goes through one section and ambient air flows through the other section, cooling the heated, compressed charge air. The cooled compressed air is then passed out of the heat exchanger to the intake manifold. The location for the installation of the heat exchanger varies with each vehicle model.

V. DISCUSSION

Spearco's air-to-air Intercooler Upgrade System will not adversely affect the vehicle's emissions or degrade the vehicle's driveability. An intercooler being a device that reduces the temperature of charge air before it goes into the combustion chamber will facilitate better combustion and less pollutants. Turbo chargers increase the temperature and pressure of charge inlet air and the intercooler reduces the temperature and hence the pressure before the charge enters the combustion chamber.

Based on engineering evaluation, the staff is of the opinion that the Spearco air-to-air Intercooler Upgrade System will not have an adverse effect on the exhaust emissions from applicable vehicles.